

Work Order ID 165772

Monday, August 28, 2017 1:44:18 PM

shp Sept 20

165772

Page 1

Item ID: D119-675-112 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Heli-Access-Step™ RH - DART Crosstube Compatible
 Start Date: 8/28/2017 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 9/6/2017 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: DAS 21 9-89 Date: AUG 28 2017 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP D119-675-112 CHG001								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.03							
Quality Control									

B#165771 x1 xRH

DAS 27 9-89
 AUG 28 2017
 SEP 20 2017
 DAS 6 9-89
 AUG 30 2017
 DAS 28 9-89
 SEP 20 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D119-675-112 Location : FG081								
	<i>Sold</i>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.10							
Quality Control									

SEP 20 2017

SEP 21 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																			
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Picklist Print

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Page 1

Work Order ID: 165772

165772

Parent Item: D119-675-112

D119-675-112

Parent Item Name: Heli-Access-Step™ RH - DART Crosstube Compatible

Start Date: 8/28/2017

Required Date: 9/6/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 15.11.09 PER IIN REV.C DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D2617-5		Manufactured	No			110	Each	55.0000	4	4			
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D2617-5

Spacer

DAS
27
9-89

Location	Loc Qty	Loc Code
FG	10	
31756	10	
ST008A	45	
140822	45	

AUG 31 2017

DAS
28
9-89

D2617-3		Manufactured	No			110	Each	31.0000	4	4			
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D2617-3

Bushing

DAS
27
9-89

Location	Loc Qty	Loc Code
FG	10	
27991	10	
ST008A	21	
142939	21	

AUG 31 2017

DAS
28
9-89

D2732-032		Manufactured	No			110	Each	62.0000	8	8			
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D2732-032

Rubber Cushion - 3.2"

DAS
27
9-89

Location	Loc Qty	Loc Code
S010	4	
163845	4	
ST010	8	
164307	8	
ST012a	50	
163993	50	

13/65835

8

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Description Work Order Deviation		Disposition		Completed By	
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165772

Parent Item: D119-675-112

D119-675-112

Parent Item Name: Heli-Access-Step™ RH - DART Crosstube Compatible

Start Date: 8/28/2017

Required Date: 9/6/2017

Start Qty: 1.00

Required Qty: 1.00

D3043-042 Manufactured No

110 Each

0.0000

1 1

**

D3043-042

Step Weldment RH

D5283-7

Manufactured No

110 Each

0.0000

2 2

**

D5283-7

Basket Clamp

D5283-11

Manufactured No

110 Each

0.0000

2 2

**

D5283-11

Basket Clamp

D5283-041

Manufactured No

110 Each

0.0000

2 2

**

D5283-041

Basket Clamp Assembly

D5283-043

Manufactured No

110 Each

2.0000

2 2

**

D5283-043

Basket Clamp Assembly

AN4-15A Purchased No

110 Each

122.0000

4 4

**

AN4-15A

Bolt

Location

Loc Qty

Loc Code

ST523

2

163579

2

Location

Loc Qty

Loc Code

GA

10

120449

10

ST343

112

m138040

12

m138336

100

B165771

DAS 28 9-89

DAS 6 9-89

SEP 20 2017

DAS 28 9-89

165778

DAS 6 9-89

SEP 20 2017

DAS 28 9-89

164643x1

165774x1

DAS 28 9-89

165775

SEP 20 2017

SEP 20 2017

DAS 6 9-89

DAS 28 9-89

DAS 28 9-89

AUG 31 2017

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DQA: _____ Date: _____



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Start Date: 8/28/2017

Required Date: 9/6/2017

Start Qty: 1.00

Required Qty: 1.00

AN4-16A Purchased No 110 Each 380.0000 4 4

AN4-16A

Bolt

**

Location Loc Qty Loc Code

FG 5

121541 5

over003 350

m138238 250

m138336 100

ST343 25

m138209 25

AUG 30 2017

DAS
28
9-89

DAS
27
9-89

4

AN4-22A Purchased No 110 Each 48.0000 4 4

AN4-22A

Bolt

**

Location Loc Qty Loc Code

over003 20

m137951 20

ST342 25

m138045 25

ST344 3

116419 3

AUG 30 2017

DAS
28
9-89

DAS
27
9-89

4

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Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Monday, August 28, 2017 1:44:21 PM

Work Order ID: 165772

165772

Parent Item: D119-675-112

D119-675-112

Parent Item Name: Heli-Access-Step™ RH - DART Crosstube Compatible

Start Date: 8/28/2017

Required Date: 9/6/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0463J

Purchased

No

110

Each

3,196.000

24

24

NAS1149D0463.I

Washer

DAS
27
9-89

Location

Loc Qty

Loc Code

GA	573	
127693	24	
M135056	40	
M137699	509	
Return2017	16	
M136665	16	
ST263	2607	
M137988	600	
<u>M138084</u>	407	24
M138230	1600	

AUG 30 2017

DAS
28
9-89

MS21042L4

Purchased

No

110

Each

2,903.000

12

12

MS21042I 4

Nut

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001	10	
m133363	10	
OVER007	1000	
m138170	500	
m138230	500	
ST303	1893	
<u>m138084</u>	893	12
m138326	1000	

AUG 30 2017

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																				
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Past Expiry Date ☐	Manufacturing Process ☐																								
Misidentified ☐	Past Due ☐	OTHER :																							

5.0 PARTS LISTS

5.1 Heli-Access-Step™ Parts List

ITEM	Qty -011	Qty -012	Qty -111	Qty -112	Part Number	Description
	X				D119-675-011	HELI-ACCESS-STEP™, LH
		X			D119-675-012	HELI-ACCESS-STEP™, RH
			X		D119-675-111	HELI-ACCESS-STEP™, LH
				X	D119-675-112	HELI-ACCESS-STEP™, RH
1	4	4	4	4	D2617-5	BUSHING
2	4	4	4	4	D2617-3	BUSHING
3	8	8	8	8	D2732-032	RUBBER CUSHION
4	1		1		D3043-041	STEP WELDMENT LH
5		1		1	D3043-042	STEP WELDMENT RH
6	4	4			D3041-1	CLAMP
7	2	2			D3041-3	CLAMP
8	4	4			D3041-5	CLAMP
9	2	2			D3041-7	CLAMP
10			2	2	D5283-7	CLAMP
11			2	2	D5283-11	CLAMP
12			2	2	D5283-041	CLAMP
13			2	2	D5283-043	CLAMP
14	4	4	4	4	AN4-15A	BOLT
15	8	8	4	4	AN4-16A	BOLT
16			4	4	AN4-22A	BOLT
17	24	24	24	24	NAS1149D0463J	WASHER (OR AN960JD416)
18	12	12	12	12	MS21042L4	NUT (OR MS21042-4)

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Revision: C

Date: 15.07.20

Work Order ID 165772

Monday, August 28, 2017 1:44:18 PM

165772***N900040100***Setup Start ***NS1***Stop ***NS2***

Item ID: D119-675-112

Accept

Revision ID:

Item Name: Heli-Access-Step™ RH - DART Crosstube Compatible

Start Date: 8/28/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 9/6/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Run Start ***NR1***Stop ***NR2***

Approvals:

Process Plan:

Date: **AUG 28 2017**

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

IIN-D119-675

C

AUG 28 2017

0.00

AUG 28 2017

100

Document Control

DOCUMENT CONTROL

100

DC

Doc Control -USB or Paperwork

Memo

Photocopy bluefile & type labels per PPP D119-675-112 CHIG001

0.00

110

Pick Kit

0.00

110

Packaging

Packaging

Memo

0.00

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Quality Control

Memo

0.03